

**PENGEMBANGAN E-MODUL BERBASIS *PROBLEM BASED LEARNING*
PADA MATERI PEMBELAJARAN EKOSISTEM UNTUK SISWA KELAS
X SMA NEGERI 2 TABANAN**

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui rancang bangun, validitas, dan kepraktisan *e-modul* berbasis *Problem based learning* pada materi pembelajaran ekosistem untuk siswa kelas X MIPA. Jenis penelitian ini adalah penelitian dan pengembangan, dengan menggunakan model ADDIE yang terdiri dari 5 tahapan yaitu analisis (*analiyze*), desain (*design*), pengembangan (*development*), implementasi (*implementation*), dan evaluasi (*evaluation*). Dalam penelitian ini dilakukan uji validitas yang terdiri dari uji ahli media dan uji ahli materi, serta uji kepraktisan terdiri dari uji kepraktisan guru mata pelajaran biologi dan uji kepraktisan siswa kelas X MIPA. Analisis data dilakukan secara deskriptif, kualitatif, dan kuantitatif. Berdasarkan hasil penelitian didapat bahwa, (1) rancang bangun penelitian pengembangan ini menghasilkan *e-modul* berbasis *problem based learning* pada materi pembelajaran ekosistem untuk siswa kelas X MIPA, (2) validitas *e-modul* dari segi materi mendapat nilai 0,78 termasuk ke dalam kategori validitas yang tinggi dan dari segi media mendapatkan nilai 0,66 yang termasuk ke dalam kategori validitas yang tinggi. (3) berdasarkan hasil uji kepraktisan guru, persentase kepraktisan *e-modul* sebesar 98,2%, sehingga termasuk ke dalam kategori sangat praktis, dan hasil uji kepraktisan siswa, persentase kepraktisan *e-modul* sebesar 87,57%, sehingga masuk ke dalam kategori sangat praktis. Berdasarkan hasil penelitian tersebut, *e-modul* berbasis *problem based learning* dikategorikan dengan validitas yang tinggi dan dikategorikan sangat praktis untuk digunakan sebagai bahan ajar pada materi ekosistem kelas X MIPA.

Kata Kunci: *E-modul, Problem Based Learning, Ekosistem, ADDIE*

***THE DEVELOPMENT OF E-MODULES BASED ON PROBLEM BASED
LEARNING ON ECOSYSTEM LEARNING MATERIALS FOR CLASS X
STUDENTS OF SMA NEGERI 2 TABANAN***

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ABSTRACT

This study aims to determine the design, validity, and practicality of e-modules based on Problem based learning on ecosystem learning materials for class X MIPA students. This type of research is research and development, using the ADDIE model which consists of 5 stages: analysis, design, development, implementation, and evaluation. In this study, a validity test was carried out consisting of media expert tests and material expert tests, as well as a practicality test consisting of biology subject teacher practicality tests and class X MIPA students practicality tests. Data analysis was carried out descriptively, qualitatively, and quantitatively. Based on the results of the study, it was found that, (1) the design of this development research produced an e-module based on problem based learning on ecosystem learning materials for class X MIPA students, (2) the validity of the e-module in terms of material got a value of 0.78, which is included in the high validity category, and in terms of media got a value of 0.66, which is included in the high validity category. (3) Based on the results of the teacher's practicality test, the percentage of e-module practicality was 98.2%, so it was included in the very practical category, and the results of the student's practicality test, the percentage of e-module practicality was 87.57%, so it was included in the very practical category. Based on the results of this study, the e-module based on problem based learning was categorized as having high validity and was categorized as very practical for use as teaching material for ecosystem material for class X MIPA.

Keywords: *E-module, Problem Based Learning, Ecosystem, ADDIE*